IN THE SPECIFICATION:

1. Please replace paragraph 0019 with the following:

In yet another embodiment of the present invention, the transducer is configured to produce a SAW having a frequency of between two and three gigahertz. A useful aspect of this embodiment provides for the transducer to produce ~~produces~~ a SAW having a frequency of about 2.45 gigahertz.

2. Please replace paragraph 0041 with the following:

Referring initially to FIGURE 1, illustrated is an isometric side view of a parcel sorting and identification machine 100 employing an embodiment of the present invention to identify parcels 110 as they are carried on a conveyor belt 120 through a reader 130 incorporated in the machine 100. This machine 100 is representative of the kind of machine 100 the present invention makes available to a large number of businesses having a need to identify objects with particularity and is illustrated in order to demonstrate certain useful aspects of the present invention. Those of ordinary skill in the art will understand that a seemingly endless number of machine 100 configurations can be used to incorporate readers 130 that can utilize the present invention. SAW identification tag 140 readers 130 for interrogating and decoding SAW identification tag 140 responses are described in detail in U.S. Patent Application Serial ~~No. _______, entitled~~ No. 10/066,249, entitled "Reader for a High Information Capacity SAW Identification Tag and Method of Use Thereof," by Hartmann, commonly assigned with the invention and incorporated herein by reference.

3. Please replace paragraph 0055 with the following:

When the transducer 315 generates a SAW signal, the SAW signal proceeds along the length of the substrate 310 until it encounters a reflector 320 and reflects a portion of the signal. The unreflected portion of the SAW signal continues along the substrate 305 and generates additional reflected signals from all succeeding reflectors 320 to create the complete modulated reflected response unique to that SAW identification tag 300. The transducer 315 converts this complete modulated reflected response back to an electrical signal that is returned to the reader by a suitable means (*e.g.* an antenna). This response is then decoded or demodulated to reveal the specific SAW identification tag 300 number. ~~The method of determining a SAW identification tag 300 number is described in more detail in U.S. Patent Application Serial No. ________, entitled "Basic High Bit Capacity SAW Identification Tag System," by Hartmann, commonly assigned with the invention and incorporated herein by reference.~~

4. Please replace paragraph 0057 with the following

Turning now to FIGURE 4, illustrated is an example of digital PPM showing four positions of a time span for transmitting data using conventional PPM. In this case, the sample to be transmitted is digital and has one of four possible values. Shown are the four possible waveforms which consist of nominally identical single pulse waveforms whose time positions can be centered in one of four time locations or pulse positions. The minimum time spacing required between pulse positions to ensure that skirts from neighboring pulse positions are essentially zero at the peak of any selected pulse is *Tmin*. Of course, pulse spacing wider than *Tmin* can be used without affecting the ability to demodulate a PPM signal, however, if ~~pulses~~ pulse positions are spaced more closely

than *Tmin,* it becomes more difficult to unambiguously distinguish one pulse position from its neighbor. Sampling the PPM waveform at each of the four possible peak pulse positions and selecting the largest one results in the demodulation of conventional PPM. It is readily apparent to those of ordinary skill in the relevant art that the demodulation process must be synchronized using one of a number of synchronization methods known in the art.

5. Please replace paragraph 0064 with the following:

MPGK includes: (1) partitioning a data stream to be transmitted into one or more separate sample values; (2) using more than one (*i.e.*, multiple) pulse ~~pulses~~ to transmit a given sample value; (3) transmitting the more than one pulse ~~pulses~~ in a span of time that is divided into time slots which are nominally but not necessarily adjacent; (4) the collection of the time slots comprising the span of time constitute a group of slots and (5) distributing the multiple pulses among the group of slots in a predetermined manner to represent the information contained in the separate sample value by a data mapping function and/or table. Groups can vary in the number of slots and/or in the number of occupied slots. All slots do not have to be identical (unequal slot widths, pulse amplitudes, etc., are allowed) nor do slots have to necessarily be adjacent to one another. A single group can be defined such that it only has a fixed number of occupied slots or, alternatively, it might allow for a varying number of occupied slots. A single data message could include more than one type of group (for example a header might be one type of group, the actual data a second type of group, and an error detection/correction word might be of a third type). All of these variants find particular utility in SAW RFID tags. Such variants are all within the scope of this invention.

6. Please replace paragraph 0070 with the following:

To demodulate the signal in FIGURE 8, it would be necessary to sample the real part of the received signal at the peak locations ~~(t = 0, 1, 2, etc.) as~~ (t = 0, 1, 2, etc.), as well as shifting the phase of the sampling signal from one time slot to the next such that it would agree with the expected phase of a pulse if it should occur at that slot ~~locations~~ location.

7. Please replace paragraph 0074 with the following:

In this embodiment, a data stream to be transmitted: (1) is partitioning into one or more separate sample values; (2) at least one pulse is used to transmit a given sample value; (3) ~~the~~ at least one pulse is transmitted in a span of time that is divided into time slots that are nominally, but not necessarily, adjacent; (4) the collection of time slots comprising the span of time constitutes a group of slots; (5) each slot has a unique phase shift and a unique time location and (6) ~~the~~ at least one pulse is contained within the group of slots in a predetermined manner to represent the information contained in the separate sample value. Groups can vary in the number of slots and/or in the number of occupied slots and still be within the scope of the present invention. Also, a single group can be defined such that it only has a fixed number of occupied slots or, alternatively, it might allow for a varying number of occupied slots. Also, a single data message could include more than one type of group (for example the header might be one type of group, the actual data a second type of group, and an error detection/correction word might be of a third type). All of these variants have particular usefulness in SAW RFID tags and are all within the intended scope of the present invention.

8. Please replace paragraph 0075 with the following:

In another embodiment of the present invention a combined multi-pulse group keying and simultaneous phase and time shift keying (MPG/PTSK)can be implemented. In the earlier illustrations of ~~MPGK multiple~~ MPGK, multiple pulses were used in one group but *Tmin* separated the pulse positions. Similarly, in the earlier illustrations of PTSK only one pulse per group (like conventional PPM) was used, but the allowable pulse separations were significantly smaller than *Tmin*. Combining the two ~~type~~ types requires attention to certain subtle details. In the MPGK case, two adjacent slots can both be occupied because, as described above, the skirt of one pulse does not overlap the peak of any neighboring pulse ~~pulses~~ (the same as for conventional ~~PPM as~~ PPM, as shown in FIGURE 5). However, if two adjacent or closely neighboring slots were allowed to be simultaneously occupied when using strongly overlapping pulses (as in FIGURE 7), the potential for strong inter-symbol interference ~~would exist~~ between pulses would exist and could result in almost total cancellation between the two where a significant phase shift between pulses is present (*e.g.*, FIGUREs 8 and 9). This potential interference must be addressed if the MPGK modulation method is to be successfully combined with the PTSK method.

9. Please replace paragraph 0080 with the following:

However, any combination of PTSK and MPGK should consider the need for providing a means to avoid the potential inter-symbol interference effects that may arise when using pulses that have significant overlap with neighboring slots. Since this method combines the characteristics of two embodiments previously ~~described in~~ described, it can appropriately be called MPG/PTSK (*i.e.*, combined multi-pulse groups with simultaneous phase and time shift keying).

10. Please replace paragraph 0095 with the following:

The present invention has been described in terms of a SAW identification tag based on a single transducer plus SAW reflective structures. Those of ordinary skill in the pertinent art should understand that various changes, substitutions and alterations are possible all of which will be within the intended scope of the present invention. These include, without being limited ~~to, (1) such~~ to: (1) coded SAW devices can be implemented using multiple acoustic tracks and/or multiple SAW transducers; (2) the SAW propagation path may be folded in a variety of ways to achieve a smaller device area or other purposes; (3) the transducer(s) may include use of unidirectional SAW transducers; (4) the phase positions of reflector structures may be implemented using fine grain spatial adjustments of reflector elements of a size that is a small fraction of a SAW wavelength on the device surface; (5) the reflectors may be arranged in conjunction with more than one SAW transducer such that the device input may be either totally or partially separated from the device output between the more than one SAW transducers; (6) instead of using encoded reflectors in the SAW device, some or all of the encoding may be accomplished using well known SAW transducer filter implementations of specified impulse responses; (7) the reflective taps and/or transducer taps that are used to encode the data can ~~used~~ use a variety of known methods for weighting the desired amplitude based on width of strips, thickness (or depth) of strips, number of strips, and varying overlap of strips; (8) the SAW transducer can also provide functions such as band shaping, phase compensation and other filter functions; and (9) ~~as well as~~ any of a number of other elements of SAW technology.